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ABSTRACT

This report presents an evaluation of the Alternative Teacher Education Program (ATEP) at Kent State University, which was developed to recruit and retain academically gifted students into teacher education. Three categories of questions form the basis for the evaluation: (1) How effective was the collaborative planning and monitoring process developed to construct and implement this project? (2) How do bright students perceive learning to teach? and (3) How effective were the four progam innovations (recruitment and selection of a cohort group; development of school-base mentors; research-based inquiry-oriented seminars; and advising for individualized program planning)? The program components are described briefly. Charts are presented outlining the major research questions, the timing of data collection, the data sources and the type of data collected. Because the project is developmental, much of the data collected was descriptive in nature. The results are discussed in a section subdivided by the three major research questions. A discussion is presented on the effectiveness of the four program components. Results from the evaluation indicated that the ATEP was successfully planned and implemented and that the level of satisfaction among participants was high. (JD)

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ED307236

PREPARING ACADEMICALLY TALENTED STUDENTS FOR TEACHING

FINAL REPORT

PART B: PROGRAM ASSESSMENT REPORT

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KENT STATE UNIVERSITY
KENT, OHIO

FINAL REPORT

FEBRUARY, 1989

SP 031 141

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PART B: PROGRAM ASSESSMENT REPORT

Introduction

The call for change in teacher education has been widespread. Reports from individuals (Goodlad, 1983; Sizer, 1984; Adler, 1982), commissions (National Commission on Excellence in Education, 1983; Education Commission of the States, 1983; Carnegie Foundation for the Advancement of Teaching, 1983), and organizations (American Association of Colleges for Teacher Education, 1985; National Education Association, 1982) suggest that the preparation and retention of high quality teachers for our nation's schools is an essential prerequisite to improving public education. However, as Schlechty and Vance (1983) noted in their study of the teaching force, teacher education does not attract recruits from among the academically able. "That teaching is unattractive to the more academically able and disproportionately attractive to the less able creates a significant public relations problem for the teaching occupation and probably serves to discourage potentially competent teachers from pursuing careers in teaching" (p. 6). Policy maker and practitioners taking Schlechty and Vance's work to heart have begun to look at the working conditions of teachers and the rewards of teaching with an eye toward making teaching more attractive as a profession. Recruitment programs with monetary incentives are blossoming on college campuses. But getting the interest of academically talented students is only part of the problem. Keeping those students' interest in teacher preparation is yet another concern.

The problems and concerns related to traditional teacher preparation are well documented. Issues of relevance, redundancy of coursework, lack of focus, poor role models in both college faculty members and classroom teachers are but a few of the criticisms levied at teacher preparation. Cruickshank (1984) iterated six categories of variables to be considered when contemplating change in the teacher education enterprise: 1) characteristics of teacher education faculty, 2) characteristics of teacher education students, 3) the context of teacher education, 4) the content of the teacher preparation curriculum 5) the instructional experiences in teacher education, and 6) the learning outcomes of beginning teachers. Each of these categories has many dimensions and each suggests interrelationship with other categories of variables. If academically talented students are to pursue careers in teaching, the teacher preparation curriculum must be sufficiently demanding intellectually; the instruction by teacher education faculty must be sufficiently stimulating; and the experiences students have during their college preparation must be sufficiently challenging for students to sustain interest in a program of preparation for teaching.

Current research examining the fabric of teaching and learning, of teachers and schools, of teacher education programs and contexts for learning to teach offers promise to the academically talented student. If teachers and teacher educators were to shape a preparation program from current research then, perhaps, academically talented students would not only feel

challenged to enter the education profession but might contribute through their own studies of teaching and learning to the knowledge base.

Purpose and Project Objectives

The purpose of this study is to describe an alternative teacher education program developed at Kent State University in response to a request for proposals from the Office of Education Research and Improvement entitled "Using Research Knowledge to Improve Teacher Education". The alternative program has addressed four of Cruickshank's categories: the individual characteristics of teacher candidates, the teacher preparation curriculum, the instructional experiences of teacher candidates, and the external or school-based context in which teacher preparation occurs. These categories provided a framework to address three areas of concern: the quality of students entering teacher education at Kent State, articulation between the College of Education and other colleges that are part of our comprehensive university, and extended involvement of public school educators in teacher preparation. Utilization of knowledge generated from research has provided a foundation for both the decision-making process and the content for proposed changes in the development of the experimental teacher education programs. General project objectives were as follows:

- to design a sequence of accelerated coursework for high ability students interested in teaching that is based upon recent research knowledge.

- to add a research orientation to teacher education courses which will enable new teachers to participate as researchers themselves in order to gain, interpret, and apply new knowledge throughout their careers; to, in effect, become inquiry-oriented, teacher-researchers.
- to add experiences that will require students to apply knowledge gleaned from research in early field practice and student teaching.

I. RESEARCH QUESTIONS

Three categories of questions emerged as the development of an alternative teacher education program began: questions related to the collaborative process used to design and implement the project; questions related to the nature of the students who became involved with the project; and questions related to the specific program improvements specified during the planning process. Those questions were:

Collaboration: How effective was the collaborative planning and monitoring process developed to construct and implement this project?

Student Characteristics: How do bright students perceive learning to teach?

Program Characteristics: How effective were the four program innovations (recruitment and selection of a cohort group; development of school-based mentors; research-based, inquiry-oriented seminars; advising for individualized program planning).

II. PROGRAM/COMPONENT DESCRIPTION

This project used a systematic approach to identify, recruit and select academically talented university students for a highly personalized teacher education program. Twenty-five academically able students were selected from the initial applicant pool. This represents approximately 1% of the total teacher education population at our institution. Candidates are selected from the freshman through junior years. The preservice teachers participate in thirty hours of accelerated, individualized coursework and field experiences which have as their core a sequence of research-based seminars. Three seminars, Inquiry into Teaching, Inquiry into Learning, and Inquiry into Schooling are taken concurrently with practica in which the concepts learned in the seminars are validated. This is followed by a twelve hour internship, which also contains two hours of seminar and four additional hours that can be flexibly applied. The program incorporates not only extant research on teaching, learning and schools, but involves preservice teachers in the process of conducting their own research as well. In addition to the thirty-hour professional studies component which takes place during four semesters, the preservice teacher is also enrolled in a broad background of coursework in the liberal arts.

The project targeted four major outcomes. These include: 1) the establishment of a systematic plan for the identification, recruitment and selection of able teacher candidates; 2) the creation of four inquiry based seminars; 3) the establishment of field experiences under the guidance of mentor teacher; and 4) the

establishment of an individualized system of advisement in teacher education. The intention of this project is to produce beginning teachers who are competent in both the art and craft of teaching, mentors that are better prepared to support the development of teachers, and university faculty who can present preservice teachers with research-based information and opportunities for inquiry.

Component 1: A systematic plan for the identification, recruitment and selection of able teacher candidates.

The potential student population is identified through examination of ACT scores and GPA. Students obtaining a combined ACT score of 25 or higher and/or obtaining a GPA of 3.4 or higher are invited to submit an application to the project. The application consists of two written references and written responses to three essays. The selection committee evaluates the essays on critical thinking, verbal fluency, written expression, commitment and prior experiences. The top twenty-five ranked students are invited to participate in the project. In cases where a clear determination cannot be made, students can be invited to interview with the selection committee.

Component 2: Alternative Program for Able Teacher Candidates

Every effort is made to make instruction research-based and inquiry-based. The research seminars are discursive, with a different mode of inquiry for each: sociological for the first seminar, psychological for the second, and the third using critical

theory. The fourth seminar incorporates the concept of classroom action research so students can select a problem and apply a mode of inquiry in the study of the problem. The courses are taught by specially selected professors who are recognized by both faculty and students as excellent teachers of pedagogy.

Component 3: Field Experiences under the guidance of a mentor teacher.

The field experiences are substantial and sustained, promoting strong relationships among students and their mentors, and emphasizing continual inquiry into teaching/learning/schools. The match between student and mentor is by individual choice made through a joint interview process. Teachers are identified as mentors for the preservice teachers for their entire two years. They orient students to teaching, monitor student progress through the professional preparation sequence, contract with students for personal and professional goals, present guest lectures at seminars, and act as professional advisors. Additionally, each student conducts a research project during the internship which is jointly supervised by the mentor and a university faculty member.

Component 4: Advising for Individualized Program Planning

Advisors are recruited from among the university faculty to participate in the program. During each semester an orientation session is held to clarify the roles and responsibilities of the advisor. Unlike the traditional role of advisor at the preservice level, the ATEP advisor and student design an individualized

program for teacher preparation. This program may compact the curriculum of the student based on prior experiences or depth of knowledge in a subject matter field. The advisor insures that the ATEP student meets all minimum standards of both the university and the College of Education. Additionally, the advisor serves as a resource person in the profession for supervision, research and support.

Additional Features:

One of the features of the project is the collaboration with constituent groups. The project has an interinstitutional Planning Council which is responsible for creating and maintaining collaborative structures for project activities. Administrator and teacher representatives from each of two collaborating school districts serve on the Council. The interinstitutional Planning Council also involves faculty and administrators from the university, including the College of Education, the College of Arts and Science, the College of Fine and Professional Arts, and the Honors College. In addition, students from Cohort I and II also serve as members of the Planning Council. The Planning Council monitors, evaluates and suggests revisions in the program based on the evaluation data compiled.

III. SAMPLE

The participating students (n=30, Cohort I; n=26, Cohort II) were chosen from the student population at Kent State University. Admission was selective. Of the total group 10 are male and 33 are female. They represent interest in twenty-two different

teaching fields. They range in age from 19 to 43. Ten of our students are considered by university criteria to be "non-traditional". Their college entrance examination scores on the American College TEst (ACT) ranged from 20 to 33 with a mean ACT score of 27.

Data were also gathered about and from the school-based mentors associated with the project and members of the Collaborative Planning Council. While the project currently includes three cohort groups of students and mentors, only data collected from Cohort I will be used to answer the research questions.

IV. METHODOLOGY

The following chart outlines the major research questions, the timing of data collection, the data sources and the type of data collected. Because this project is developmental, much of the data collected was descriptive in nature.

METHODOLOGY

RESEARCH QUESTIONS	TIME OF DATA COLLECTION	DATA SOURCE	DATA TYPE
Program Characteristics:			
How effective was the identification, recruitment, and selection process developed for creating student cohort groups?	Spring, 1986 Spring, 1987 Spring, 1988	Planning Council members; students; project staff	Anecdotal records; structured Interviews; Admissions report
How effective was the identification, recruitment, and selection process developed for creating school-based mentors.	Fall, 1986 Spring, 1987 Fall, 1987 Spring, 1988	Planning Council members; mentors; students; project staff	Structured questionnaire; Anecdotal records; mentor information forms; mentor evaluations; student evaluations
How effective were the research-based, inquiry-oriented seminars in developing reflective teacher candidates.	Fall, 1986 Spring, 1987 Fall, 1987 Spring, 1988	Students; Faculty members; Planning Council members; project staff	Anecdotal records; Observation; Structured questionnaire; "Learning" Autobiographies
How effective was the individualized advisement and program planning process?	Fall, 1986 Spring, 1987 Fall, 1987 Spring, 1988	Students; faculty advisors	Structured Questionnaire; Transcript; Review of Prospectus; Faculty Survey

METHODOLOGY

RESEARCH QUESTIONS	TIME OF DATA COLLECTION	DATA SOURCE	DATA TYPE/INSTRUCTION
Collaboration: How effective was the collaborative planning and monitoring process developed to construct and implement this project?	Spring, 1986 Spring, 1987 Spring, 1988	Planning Council Members	Structured questionnaire aimed at perceptions of progress and satisfaction; minutes from Planning Council meetings.
Student Characteristics: How do bright students learning to teach?	Prior to program initiation	A. Students	A. Structured interview; questionnaire; "Measure of Epistemological Reflection"
	End of each semester	B. Students	B. Journals; structured questionnaire
	End of program	C. Students	C. Mentor evaluation of student performance; student autobiography; student research.

V. INSTRUMENTATION

Most data gathering tools were designed by project staff. The preliminary information gathered from students--the Student Interview Questionnaire, the Professional Data Form and the Student Questionnaire were adapted from instruments developed based on Lortie (1975) from the "First Year Teach Study" (Ryan, et. al., 1978).

The "Measure of Epistemological Reflection" (Taylor, 1983) was the only standardized instrument used in data collection. This instrument was developed to provide specific stimuli and a standard scoring procedure to reduce the degree of influence necessary to assess the scheme of intellectual development and cognitive structures as identified by Perry (1970). It was hypothesized that a structurally and conceptually different program of teacher preparation aimed at developing and enhancing a student's inquiry ability would influence the student's cognitive structures. According to Perry, individuals move from one structure to the next when the encounter experiences that are discrepant with their current structure. Cognitive conflict provides the stimulus to reorganize the structure to reduce the discrepancy. The MER assesses six domains of intellectual development: decision-making; role of the learner; role of the instructor; role of peers; evaluation; view of knowledge, truth or reality. Each of these domains is represented on the instrument by an open-ended questions. The content of each response is analyzed by Perry's 5

positions or "reasoning structures." This instrument was given to students before they began the project and upon graduation from the project. The coding was done by a researcher at a nearby university who uses the MER extensively in her own work and who trains others to do content analysis with this instrument.

Across the duration of the project data were gathered from all participants to determine both impact and satisfaction with the project. (See Appendix A for copies of all questionnaires and instruments used in the documentation process). The graduate research assistant summarized and compiled data on a semester by semester basis. The results from these data collection processes represent gross findings from a complex documentation plan.

VI. RESULTS

This section is subdivided by the three major research questions.

Collaboration

How effective was the collaborative planning and monitoring process developed to construct and implement this project?

Overview

The organizational structure used to plan this project was a Planning Council which consisted of members representing public school personnel from two districts; faculty from the Colleges of Arts and Sciences, Fine and Professional Arts, and Education; Honors College staff and students. During the planning stage, the 1985/86 academic year, student representatives were Honors College seniors majoring in education, Alternative Teacher Education

Program (ATEP) students served as representatives during the implementation stage from Fall 1986 to the present. The Council met regularly, at least four times each year, throughout the three-year period. In addition, Planning Council committees met when necessary (e.g. Selection Committee).

From the first meeting, the Planning Council made suggestions and reached decisions regarding the parameters of the program. They decided what the program should be, when it should begin, what type of students to recruit and select, what the curriculum should be, etc. Committees were formed to address the major components of this project. Suggestions were written, presented to the entire Planning Council, and discussed.

Over the course of the three-year period, membership in the Council changed. As previously stated, senior education students in the Honors College were replaced by Cohort I ATEP students in Fall, 1986. Cohort II students were added in Fall, 1987. Some unplanned changes in membership also occurred. One professor retired and another left the University. A public school teacher resigned due to new district responsibilities. New College of Education representatives were recruited to meet evolving program needs. At the end of the 1987/88 academic year, the Planning council consisted of 20 active members (10 from the various Colleges; 5 from the public schools; and 5 students from both ATEP cohort groups).

In order to assess the effectiveness of collaboration, the Planning Council Evaluation (PCE) was administered twice, once in

the spring of 1986 and once in the spring of 1988. The PCE was designed to assess members' thoughts and opinions about the Council's role, its effectiveness as a collaborative body, and the benefits of participating in the development of a special educational program. The results of this survey are presented below and in Appendix B.

Planning Council Evaluation: 1986 and 1988

Thirteen Planning Council members completed and returned the surveys in 1986; 12 returned them in 1988. That interest in the project was sustained over time is supported by the attendance at meetings, which averaged 15 members per meeting over the three-year period. Of those who responded to the survey question, 11 in 1986 and 12 in 1988 indicated that they attended all or most of the meetings.

Opinion was divided on the type of meeting members felt was most helpful. Entire group sessions were preferred by almost 40% in both 1986 and 1988; small group sessions by approximately 25% of in both years; and all-day work sessions by about 25%. One respondent each year said all types of meeting sessions were equally valuable.

In the first major section of the survey, 17 statements were listed. Council members ranked them from 1 (agree) to 5 (disagree). Rankings and mean scores for each statement are found in Appendix B.

Generally, the respondents were satisfied with their participation on the Council. The adjusted mean for 1986 was 1.39;

it was 1.58 for 1988. These figures indicate a slight downward trend in agreement. However, in using the 1 to 5 scale, a mean score of 2 or less is considered to be in agreement. Respondents felt the climate was open, their ideas were accepted, they had learned valuable information, conflicting viewpoints were appropriately discussed, and there was a sense of mutual respect and colleagueship among members. Respondents agreed that Council members were working for the benefit of the project and were taking important "risks" in the project. They felt there was a definite need to develop a high quality education program and they viewed the collaborative process between public schools and the University as both valuable and beneficial. One person commented that collaboration was an especially strong aspect of the project. Another stated that the participation of school personnel was a big "plus".

There was an upward trend in agreement for two statements. More respondents knew why they were selected to participate on the Council in 1988 (mean score of 1.42) than in 1986 (mean score of 1.62). Also, more respondents indicated they learned information about the traditional views of teacher education as the Council ended its third year (mean score of 1.92 in 1986 and 1.58 in 1988).

Respondents indicated less agreements in two specific areas. First, they felt that not all Council members were actively and equally involved (mean scores of 2.54 in 1986 and 3.42 in 1988). Several commented that some members should attend meetings more frequently. Second, respondents believed that some members' ideas

were accepted more readily than the ideas of others (mean score of 3.15 in 1986 and 2.67 in 1988). As one person commented, "We listen to everyone, but several do carry more weight." In contrast, another member wrote that she was unaware of any differentiation.

In addition, there was a marked downward trend in response to the statement regarding the mutual development and clear definition of Council goals (mean score of 1.31 in 1986 and 1.92 in 1988). One person stated that the Committee goals were not always clear. A student wrote that although the goals were not always clear, he saw no problem with the situation.

The second major section of the PCE included 10 open-ended questions/statements related to various aspects of the collaborative planning process. The highlights of this section are presented below.

Members listed their contributions to the planning process. Primarily, they saw themselves as presenting particular points of view (e.g. student, mentor, teacher) during the discussions they valued highly. They also listed such contributions as working on the ATEP Handbook, implementing the student selection process, developing curriculum and evaluating the program.

That members viewed the Council as a beneficial collaborative body was evident in their belief that the Council should continue in some form after the grant period ended. Respondents felt it was important to continue their evaluation procedures and to add a long range evaluation of ATEP graduates.

When asked what ATEP offered students that the traditional program did not, Planning Council members listed more time to practice teaching, more opportunities to learn about life in the schools, a chance to take risks by making and correcting mistakes, more academically challenging coursework, and a chance to develop closeness with their peer group. One person stated that ATEP allowed students to develop pride in the teaching profession. Another thought it gave college students time to explore ideas, schools, and the profession as well as exploring themselves. One respondent stated that although he was not sure the program was better, he was certain it was different.

Respondents listed different benefits evolving from their participation on the Council. Public school teachers were appreciative of the professional treatment they received from other Planning Council members. University members learned what students wanted in a teacher preparation program and what school district administrators wanted from the program. Members enjoyed learning about the program and about teacher education as well as hearing the ideas of theirs involved in the project.

Members were asked to list the positive and negative aspects of the collaborative effort. They believed the discussions were most beneficial because they could "bounce ideas off each other" and brainstorm solutions to problems. The compromise which resulted produced solutions that represented "the best of both worlds". Several members believed it was important to include representatives from different groups in order to discuss problems

from a variety of viewpoints. Members felt that the collaborative effort was beneficial because all parties were open to the ideas of others, were working towards the same goals, and were committed to and enthusiastic about the new program.

Several negative aspects were also reported by Council members. Respondents viewed the poor attendance of some members as negative because the Council could not receive their input. One person did not like "working in isolation as committees." Another wished to know "fellow Council members" better. A respondent stated that "most members were quite open-minded and friendly, but some spoke to hear themselves speak rather than to make a point appropriate to the discussion." In contract, another respondent did not see any negative aspects to the collaborative effort.

Members felt the planning process could be improved by having set objectives for meetings and activities and by having more public school and student representation. One respondent felt the process was excellent and could not be improved.

Student Characteristics: How do bright students perceive learning to teach?

Background

Suppositions and assumptions about the nature of bright students who might engage in teacher preparation led to the configuration of courses and experiences formulated for ATEP.

Initially, we could only surmise what meaning bright college students might make of the learning to teach process. One of our primary objectives was to find out about these students. As students were admitted to ATEP we wanted to learn as much about them as possible. Not only were we curious about their educational backgrounds and academic prowess, but we also wanted to know why they were interested in teaching as a career, who their models had been and what their images of effective and ineffective practices were. What were their professional roots, expectations, anticipated problems and expected futures. Prior to beginning the program the student were interviewed and they completed the previously described instruments. As the students began their coursework and worked with their mentors we asked them to keep journals about their experiences. At the end of each semester we asked the students to tell us what they had learned, how they were able to use their knowledge in schools and how they felt they were changing as they progressed through the program. As a culminating experience all the data were returned to the students who were asked to review the data and construct a Learning-To-Teach Autobiography. (See Appendix C for two examples of the autobiographies produced). A content analysis of those documents (N=8) produced the following (tentative) themes.

Results from Content Analysis: Themes

Nine themes emerged from an analysis of the students' writings. They are:

Change and maturation:

All autobiographies described views of growth. Students saw in their data instances where views of self or views of teaching had been altered. Phrases like "I can't believe I thought about teaching that way just two years ago" revealed that the changes were obvious. Some viewed their initial discussions of teaching as idealized and naive. They also mentioned the harsh reality of working in schools and how they have tempered their position of wanting to reach each child to recognizing that there are some kids and some teachers that have a great deal of difficulty working together.

Strong influence of life history:

Each of the autobiographies showed a strong interplay of personal and professional issues. Issues of parental acknowledgement and support, marriage, birth, divorce or religious affiliation illustrated that the personal lives of each student influenced their perceptions of the process of learning to teach. These college students' struggles with adult decisions and the impact of choice affected their view of teaching.

Development of Commitment:

Though each student acknowledged a desire to learn to teach upon acceptance into ATEP several discussed a change in that commitment. Comments like "I thought I might want to teach" to "this is the right profession for me" are illustrative of the development of commitment to the profession. A clear influence on the development of commitment was the school based experience and the mentorship.

Influence of model college professors:

Each of the accounts acknowledged the influence of specific college faculty members. The faculty who conducted the ATEP seminars were described as "outstanding models of different approaches to teaching." Also mentioned were several faculty members from Arts and Sciences. Language such as "a real intellectual" and "she saw in me a fine mind that she felt belonged in the sphere of humanities" led me to believe that strong faculty members do influence the way students think about themselves as potential teachers.

Cohort Group:

Each of the accounts also acknowledged the importance of having the cohort group for both challenge and support. The group was seen to take on a life of its own, almost apart from the program. The group was described as "challenging", "stimulating", "fun", "best, brightest and brattiest". Students appreciated one another, showed care and concern for feelings and frustration. Being together over a period of time had meaning for them. A "learning community" was formed.

Bonding with a mentor:

Each autobiography described in length the value of the mentor-protegee relationship. In a couple of instances the mentorship turned sour. Yet, important insights were acknowledged. The development of the bond took longer for some students than it did for others. Generally speaking the students valued the "wisdom of practice" displayed by their mentors as they worked with them. The mentors were viewed as role models, colleagues, and in some cases, friends.

Understanding and experiencing the complexity of teaching:

In the autobiographical statements many of the students discussed how learning to teach is a lengthy and complex process - much more difficult and challenging than they had initially anticipated. Though the students admittedly encountered problems, - primarily classroom based - they worked hard to overcome them. some of the problems, admittedly, were self-inflicted because of high (unrealistic) standards set by oneself for oneself. The desire to be excellent in teaching as they were excellent academically created stress for some. "It (teaching) takes practice, time, mistakes, criticism and hard work."

Establishing Confidence in Self as Teacher:

Many of the ATEP students approached college work with academic confidence. They had been school wise and successful. They wanted to equate learning concepts with learning the skills of teaching. For several of the students the acknowledgement that learning was different from teaching was shocking. Yet over time their confidence in self-as-teacher grew.

Importance of self-knowledge, self-respect and reflection:

Knowing "who I am and what I want from my profession" was another theme emerging from the students' writing. Above all the conceptual and content knowledge, the knowledge stated as most valuable was self-knowledge. Through the process of reflection--discussions after class, journal writing, review of documents produced, research and query--several of the students arrived at the point that thinking about oneself in the process of teaching is valuable. "I have often consulted my notes on learning strategies when writing a test or preparing a lesson. Overall, though, I have learned more about myself and how teaching fits into my life than anything else. Now I feel I can promote self growth and development in my students."

Results from the MER

Table 1 displays the pre and post test scores from the MER for the 8 students who have completed the program.

TABLE 1

MEASURE OF EPISTEMOLOGICAL REFLECTION

ENTRY LEVEL SCORES

EXIT LEVEL SCORES

Student	Domains						Model TPR	XTPR
JB	2	4	2	2	3	4	2(4)	2.83+
	3	**3**	**4**	**3**	**4**	**4**	**4-3**	**3.50**
DB	5	4	5	5	5	5	5	4.83-
	4	**4**	**4**	**3**	**4**	**5**	**4**	**4.00 ***
CC	3	3	3	3	2	3	3	2.83
	3	**3**	**3**	**3**	**2**	**3**	**3**	**3.17+**
BE	3	3	3	3	3	4	3	3.17+
	4	**4**	**4**	**4**	**3**	**4**	**4**	**3.83**
LG	2	3	3	3	2	3	3(2)	2.67+
	3	**3**	**3**	**3**	**3**	**3**	**3**	**3.00**
LH	2	3	3	2	2	3	2-3	2.50
	** **0**	**3**	**3**	**4**	**4**	**3**	**3**	**3.40**
SK	3	2	4	4	0	3	3-4	3.20
	3	**3**	**3**	**4**	**3**	**3**	**3**	**3.17**
KS	3	2	3	2	2	3	2-3	2.50
	** **0**	**4**	**4**	**4**	**4**	**3**	**4**	**3.80**
TOTAL	23	24	26	24	19	28	24.50	24.53
	20	**27**	**28**	**28**	**27**	**28**		**27.45**
$\bar{X}$	2.88	3.00	3.25	3.0	2.71	3.50		
	3.33	**3.38**	**3.50**	**3.5**	**3.38**	**3.50**		
RANGE	2.50 - 4.83							
	2.83 - 4.00							

* less certain about way life is, struggling now (difficult to score because of added insights/thoughts)
** crisis-marriage, critical point not explained, significant event
*** pregnant - decision had two year affect

Employment

As of this writing (August 1) we know that:

- one student is in Germany substituting in an American school on an Army base.
- three students have teaching contracts in hand.
- one student will be a graduate teaching assistant in a Ph.D. program in physics.
- one student is employed as a counselor in a half-way house for delinquent adolescents.
- two students expect to be offered teaching contracts momentarily.

Program Characteristics

How effective were the four program innovations?

Recruitment and Selection

Identification Strategy

"Bright students" were defined as those who had demonstrated superior academic performance in college coursework. Because no monetary incentives exist for the project and because we wanted to encourage those who have demonstrated ability to succeed in college, the potential applicant pool consisted of those students who had completed at least 36 semester hours of coursework and had a cumulative grade point average of at least 3.40. Their scores on the American College Test (ACT) should be greater than 25. The Registrar's office furnished us with a master list of all students within the university who met those two criteria.

Multifaceted Recruitment Strategy

Four different approaches were used to encourage application to the project. First, personalized letters were mailed to each student in the applicant pool. The letters were invitational and included a descriptive brochure, dates and times of informational sessions and a postcard to return to request an application packet. A second and similar approach was used to contact College program advisors and professors in the Colleges of Arts and Sciences and Fine and Professional Arts asking for nominations of students with high ability and teaching potential. A third approach involved gaining "publicity" within the university community and from news media within the community at large. Articles were prepared for local papers and copy was created for the campus newspaper. The fourth approach was face-to-face contact with students at informational meetings. Three meetings were held each year to allow prospective applicants to ask questions about the project. During the second year's recruitment period, students from Cohort I conducted the sessions. The recruitment phase occurs within a six-week period during the spring semester.

The Application Packet

Taking into account the knowledge gleaned from the literature and advice from professionals in the field, criteria were developed for assessing applicants based upon the inquiry conceptualization adopted by the program development task group to guide the curricular and instructional features of the program. Because no

evidence exists to link program conceptualization and selection criteria, a best-guess approach which focused upon the "multi-dimensional aspects of the teaching role and the personal qualities which it requires for success was used by the team." (Howey and Strom, 1987, p. 1).

The following characteristics and abilities were considered: academic ability; ability to plan and do independent work; ability to understand, analyze, and synthesize concepts; writing ability; interpersonal communication skills; leadership potential; critical thinking ability; commitment to teaching; and a breadth of life experience. Since the program emphasizes an inquiry orientation to teaching and learning, the task group felt it would be particularly important to get an impression of thoughtful reflection from the written responses of students.

The application packet itself contained the following: a basic data sheet for the student to complete; two recommendation forms to be completed by teachers who could assess teaching potential; a controversial article for which the student was to provide a critical response to arguments presented; a list of teacher characteristics from which the applicant was to select the three he/she considered most important and to provide a rationale for the selection; and a request to list activities, hobbies or experiences that would add to the applicant's teaching ability.

The data-gathering process embedded in the application contained the following protocols (Table 2) ascribed to the selection criteria. All selection data were collected prior to program admission.

TABLE 2

CRITERIA	APPLICATION TOOL	PERSON COMPLETING
- Academic Ability	Transcript of college work	Registrar
- Ability to plan and do independent work	Letters of recommendation	Reference
- Ability to understand, analyze, and synthesize concepts	Letters of recommendation; writing sample	Reference; student
- Writing ability	Writing sample	Student
- Interpersonal communication skills	Letters of recommendation;	Reference;
- Leadership potential	Letters of recommendation;	Reference;
- Critical thinking ability	Writing sample	Student
- Commitment to teaching	Writing sample	Student
- Breadth of life experience	Personal data sheet	Student

Review Process

The five-member task group each read and rank-ordered the applications independently. Once each person had made decisions about the candidates, the group met to compare results. The meeting for final decisions about the candidates was tape- recorded and the tape transcribed to check reviewers' commentary and to determine to what degree each aspect of the application influenced the outcome of the process. A review of that transcript revealed the following:

- Members of the review committee brought personal attitudes, experiences, and biases to the selection process.
- Some focused only on academic records.
- Some were influenced by the aesthetic presentation of materials (clear, error-free copy, correct spelling, proofreading).
- Two of the members (both university faculty) reacted to the whole effect of the application while two of the members (both school personnel) commented more on the subparts of the application.
- The university faculty members talked more during the review process; the student representative talked least.
- The group agreed to a four-point category system which accounted for all criteria: "Absolutely Accept-OK-Maybe-No".

All students who received the approval of the selection committee agreed to participate in the project.

An Assessment of the Plan's Effectiveness

The process just described has been implemented and revised and has been applied to the selection of a third cohort of students. To assess the overall effectiveness of the plan, two tables are offered for scrutiny:

Table 3 provides an overview of five aspects of identification, recruitment, and selection statistics: the size of the applicant pool, the number of nominations provided by faculty members, the number of students requesting applications, the number of students completing applications, and the number of students finally selected for the program.

TABLE 3

	YEAR I	YEAR II	YEAR III
Identification Pool	450	182*	346
Nominations	4	12	30
Applications Requested	132	87	93
Applications Completed	53	52	54
Applicants Accepted	30	26	31

* Requested only sophomores from external colleges.

Table 3 indicates that there has been a growing interest on the part of faculty in nominating students for the project. While there was a decrease in the number of students requesting applications in Year II, the identification pool was significantly smaller. In Year III, the number of students requesting applications has increased.

Student Profile

Table 4 provides a view of the cross-section of students admitted and retained in the project. The majority of students have interest in teaching secondary school. In Cohort I, elementary education and secondary English were the most frequently chosen teaching fields. In Cohort II, mathematics education was the most frequently chosen field of study.

Not unlike traditional programs, more females are part of Alternative Teacher Education Program (ATEP) than are males. Approximately half of the students are College of Education students and half are from colleges other than education.

TABLE 4

STUDENT PROFILE

APRIL 1988

AREAS OF CERTIFICATION	**COHORT I**	**COHORT II**
Early Childhood	1	0
Elementary	7	4
Special Education		
LD/BD	1	0
Gifted	3	1
EMR	1	0
MSPH	0	1
Dual: K-12		
Art	2	0
Music	2	0
Secondary		
Comprehensive Social Studies	2	0
Comprehensive Science	0	1
Communications	2	2
English	7	4
Journalism	2	0
French	2	0
German	1	0
Spanish	1	2
Latin	0	1
Mathematics	1	5
Chemistry	2	3
Physics	2	2
Biological Sciences	1	2
Educational Media	1	0
	N=23	N=20
SEX		
Male	6	4
Female	17	16
COLLEGE AFFILIATION		
Arts and Sciences	7	9
Education	11	11
Fine and Professional Arts	5	0

* Some students are seeking certification in more than one area.

RETENTION

As mentioned at the onset, as important--maybe even most important--in encouraging bright students to enter teacher preparation is the ability to retain them in preparation and in the profession. The retention rate in traditional teacher preparation at our institution is 46%. Table 5 documents the retention rate of students in this project.

TABLE 5

RETENTION

(% Retained)

SEMESTER	COHORT I N=30	COHORT II N=26
Summer, 1986	28 (93%)	
Fall, 1986	26 (87%)	
Spring, 1987	25 (83%)	
Summer, 1987		24 (92%)
Fall, 1987	23 (76%)	22 (85%)
Spring, 1988	23 (76%)	20 (77%)

Only one student in Cohort I "disappeared" without an exit interview. Based on discussions with students who left the project, we identified the following reasons:

- Desire to pursue a graduate degree in the major field of study (n=1)
- Change of major (n=2)
- Personal/family problems (n=2)
- Decline in commitment for teaching (n=3) (this came after 2 semesters of field work)
- Too many hours completed in traditional teacher education program (n=5)

MENTORING

The purpose of establishing a mentorship for each ATEP student was to provide a sequential, continuous field experience under the guidance of a recognized master teacher. The mentor teacher serves as a guide to the developing professional; a role model for professional development; a resource person and adviser in the field. A total of 49 mentorships in 12 school districts encompassing 23 fields of study have been established and maintained during the past two years.

Data about the effects of the mentorships were gathered from the mentors themselves, from end of semester student evaluations and from staff notes taken at mentor meetings. The benefits to mentors and students alike have been numerous. Students rate the mentorship as one of the most outstanding features of the project.

> "In my mentoring experiences, I have accumulated a <u>wealth</u> of information, especially with regard to discipline, motivation and learning disabilities."

"My relationship with my mentor is close, honest, friendly, and 'professional'. She is obviously concerned with real development on my part and works hard to keep me challenged."

"I love him!! He's great! He has confidence in me which makes me feel comfortable and then I can work better with the kids."

"We have a good working relationship. She respects my ideas and is willing to work with me on my own. At the same time she isn't afraid to offer suggestions or criticisms. She is pleased with what I'm doing and so am I."

Mentors also comment favorably on the experience.

"I was able to grow and see myself over a longer period of time. I was made to reorganize in those areas that needed reorganization. I found myself being open to qualities I found lacking in myself and yet apparent in the student teacher."

"I feel I gained a new outlook on some subjects and techniques and thought more about what I do. I enjoyed Doug's responsible attitude and intelligent approach."

"It gave me the chance to stand aside and observe the teaching process more objectively. I was forced to articulate (evaluate) and argue my education philosophy with my mentor student. I was also forced to see my own strengths and weaknesses more clearly."

"Barbara was not only an intern under my guidance, but she has become a friend. Professionally, I feel that I am capable of objectively and intelligently guiding future teachers toward becoming professionals."

"Professionally, I benefitted from the mentorship because I reinforced my teaching ethics, reexamined my instruction, and become more aware of the need to evaluate myself in all aspects of providing an education. Personally, I made a good friend. With the increased amount of time, we were able to establish a friendship that will last well beyond the internship period."

"I enjoy the feeling of figuring in the development of an excellent teacher. I feel I am contributing to the future of our profession."

Two notable areas for improvement have become apparent: placement and supervision. The placement process in which the potential mentor and student select one another is unique to most administrators and school districts. The administrative team is more familiar with placement as their sole responsibility, one which does not involve decision-making on the part of the university student. In one instance the administrators requested the names of all potential mentors to be screened prior to notification of the teacher that they had been recognized by another professional as a "master teacher". As noted earlier, change is often difficult for some educators to assimilate. Recognizing the authority of the public school system to make the final determination on placement while retaining flexibility to select optimum matches required several lines of communication be established and maintained. ATEP staff members conducted several meetings, maintained correspondence and telephone contact with the concerned persons in one key school district. A tentative agreement has been reached and will be implemented with Cohort III students. Interestingly, other school districts were more flexible requesting only final approval of the match.

Supervision, although not a major concern, was mentioned in the evaluation process. A few mentors were hesitant to accept the responsibility for full supervision of the ATEP interns. In all instances a university faculty member, the advisor when possible, was assigned to observe during the final semester. The university supervisors were, in large part, functioning to affirm the

observations previously made by the mentor. This assignment of a specifically designated university faculty member appears to give some mentors more confidence in their ability to appropriately evaluate the ATEP student. Expectations of the ATEP staff varied considerably. Members voiced opinions of the supervisory process which range from "helpful and accessible to not available". It is clear that each mentor had individual needs for structure and supervision which were not always recognized.

The mentor meetings held each semester contributed positively to the project. These meetings enabled mentors to discuss concerns, clarify roles and make recommendations to the project staff. Often one mentor gave insight or suggestions on a problem to another mentor without ATEP staff intervention. Mentors also established inter-district and cross-district contact, further evidence of spontaneous collaboration.

The mentoring experience, for students and teachers, has been one of the most beneficial aspects of the program. As one mentor put it,

> "I felt that my strengths as an educator came out and I was really able to evaluate and change some of my own techniques. Professionally, it was quite a growing experience."

The benefits for the students are clear, however, the benefits for the master teacher go far beyond the remuneration they received. Further comments may be located in Appendix D of this report:

> "A great program and a very successful and satisfying experience!"

"I loved this program! (I had a great student and none of the problems that some of the other mentor teachers had.) I would definitely recommend this program to colleagues and students, although I won't participate in it again for a couple of year. It demands a lot of the mentor teacher. My biggest problem was to be disciplined to get things done while the student intern taught. (I was not needed to the degree I am during my regular teaching schedule). I missed teaching very, very much!"

"I loved the program! I believe this is the best method for all potential teachers. The privilege of being interviewed and then having the choice to accept or reject each other would alleviate so many problems, especially personality conflicts. The earlier entrance would help the students to make a better decision as to whether teaching is really for them. The time of observation and internship allows for a much more enriched experience and provides the student with a better foundation for beginning their teaching career. I was proud to be a part of this program. Please permit me to participate as a mentor again soon if possible."

"I enjoyed the opportunity and would like to be considered available for future opportunities."

It is clear in the eyes of both ATEP students and the school based mentors that this program improvement was perceived as effective.

ADVISING FOR INDIVIDUAL PROGRAM PLANNING

A major focal point of the Alternative Teacher Education Program has been to design a unique plan of study for each student. ATEP students have been characterized as academically able and reflect advanced rates of learning, knowledge acquisition, and motivation to teach (Advisor Evaluation, Spring 1988). The recognition of the development of teaching skills coupled with

unique learning abilities created a need to develop an individual prospectus for each student. The faculty advisor moved beyond the traditional role of simply assuring compliance to a prescribed program and into the role of program developer. The faculty advisor purposefully counseled the ATEP student, recommended coursework, monitored progress and supported the student as they learned to teach. Data about this program improvement were gathered from student semester evaluations, advisor evaluations, noted advisor comments and documents (students prospectuses).

The advisor has a wide variety of ways in which to individualize student requirements. Based on the student's background, skill and rate of development in teaching, the advisors have deleted, substituted or waived courses. Advisors have enrolled ATEP students in graduate courses, individual investigations or integrated course choices which meet career objectives. For example, substituting upper division math courses for beginning required courses or obtaining permission to attend graduate courses in a specific area are ways advisors and students addressed program choice. While each member of the cohort is enrolled in the four seminar sequences, the individual prospectus for each student may look completely different. (Appendix E)

The response of faculty advisors toward ATEP and individualized program planning has been generally positive. ATEP advisors report spending more time with the student; however, the advisors also note their positive response to the approach. As one advisor stated, "many of our students, due to intellectual

capacity, need such an alternative" or "we need to leave the cookie cutter approach to preparing teachers behind, ATEP meets the students' needs."

Creating a new format for advising is not without its frustrations. Early confusion was apparent in comments from faculty and students alike. Notes such as "how flexible can we be and still be acceptable" or "need more guidelines" indicate the need for further information. The ATEP Planning Council subcommittee on advising has drafted a student handbook. The ATEP staff has also held open meetings and provided a contact person within the department. This has alleviated some of the confusion. The question of "how flexible" still remains. The ATEP Planning Council maintains the position that individualization and flexibility are integral to the success of the program therefore the guidelines continue to be just that "guides". The program intentionally provides no specific recommendations on how or what to individualize. Thus far, the individualization of the student program is one of the more difficult dimensions of the program. Changing the faculty perspective of the advisement process from lock-step programming to personalized programming can be difficult. As one advisor stated "College is not set up to advise this way". The rewards for faculty members have also been noted. These include:

> "I have thoroughly enjoyed my ATEP advisee. I have had the opportunity to watch her grow in skills and confidence. The closeness has been mutually rewarding."
>
> "I hope ATEP continues for years to come. ATEP allows for the building of programs that address strengths and weaknesses."

The individual prospectus continues as a positive characteristic for ATEP students. Evaluations of the role of advisor and the individualized program are above average. The individualized program approach $\underline{x}$ 4.50 on a 5.0 scale (with 1 unsuccessful and 5 highly successful) and advisors $\underline{x}$ 4.21. Comments from ATEP students confirm the earlier observations of faculty members to increase communication with advisors and students alike. This concern has been considerably decreased with Cohort II and when the ATEP handbook is completed it is anticipated that most of the difficulty in this component will be eliminated.

SEMINARS: HOW EFFECTIVE WERE THE RESEARCH-BASED INQUIRY-ORIENTED SEMINARS IN DEVELOPING REFLECTIVE TEACHER CANDIDATES?

Overview

A major program goal was to guide the development of reflective teachers who are able to effect positive change in school settings by improving the quality of teaching and learning. This goal was facilitated through student participation in four inquiry-oriented seminars, which replaced six courses in the pre-professional sequence completed by students in the traditional teacher education program; long-term mentorships with practicing master teachers, which replaced many of the field experience requirements; and the joint development of individualized education programs with faculty advisors, which

considered the needs and interests of each student. As these program components are purposefully integrated, it was difficult to separate the effectiveness of specific seminars from other components or experiences that contributed to the development of reflective teacher candidates. However, it was possible to assess the effectiveness of seminars by analyzing videotaped seminar sessions and field notes, reviewing seminar evaluations completed by students, reading evaluations of students' performance written by professors, and compiling information about seminars found in students' Learning-to-Teach autobiographies.

Seminar Conversations, Interactions, and Evaluations

Videotaped seminar sessions provided information about the types of conversation and interaction that contributed to the development of reflective teacher candidates. The purpose of the seminars was to examine educational issues through a discussion format that involved critical thinking, problem solving, and other cognitively complex thinking processes. Preliminary findings from these analyses indicated that professors encouraged student participation, did not frequently act as authorities or information-givers, asked a higher proportion of open-ended than closed questions, and turned questions back to the students rather than giving answers. Students actively participated in structuring the seminar conversations, provided experiential examples to extend discussions, asked substantive questions of each other and the professors, and evaluated their peers' and professors' statements.

Descriptive evidence that these seminar conversations were reflective in nature was found in the uncertain and inquiring attitudes expressed by students in their questions, the way they examined themselves and their actions as well as the motives and actions of others, and the openness they exhibited when faced with new information or conflicting points of view. To illustrate the level of reflectivity encouraged and facilitated by one professor and expressed by students, the following example was reconstructed from field notes (Hutchinson, November, 1987).

> During one seminar session, a situation for discussion arose when a student's editorial was published in the campus newspaper. This editorial addressed issues related to Smalltown High School's tradition of 'burning in effigy' of a rival school team member on the day of the big football game. The student writer (let's call him Don) suggested the tradition encouraged mob mentality, incited violence, and provided a setting for the expression of student profanity. Vivid examples of student behavior supporting his beliefs were detailed in the editorial. Also, Don complained that time was taken from students' academic pursuits as the 'burning' took place during school hours. The editorial ended with the suggestion that educators spend time fostering tolerance and understanding rather than promoting competition and hatred.
>
> The background: Don's mentor taught at Smalltown High School and Don attended this event as part of his mentorship experience.
>
> The situation: After reading Don's editorial, an administrator of Smalltown High School called Don to his office. 'Mr. Jones' admonished Don, stating that he was an 'invited guest' who had taken advantage of his hosts' hospitality and kindness. Don did not accept Mr. Jones' position.
>
> The discussion: Don told his story, stating that Mr. Jones had violated his rights, rights that were guaranteed by the First Amendment. Don fervently believed in his right of free expression and felt Mr. Jones was 'out of line', especially as the editorial was published and

> distributed on the nearby campus rather than at the high school. Seminar peers jumped to Don's defense and supported both his actions and beliefs. Then, the professor posed a questions: 'in what ways might this editorial have affected Smalltown students and staff?' The discussion continued, taking on a different perspective and tone. Seminar participants imagined how staff and students may have felt - violated, angry, offended. They suggested that, in fact, the tradition might build a feeling of unity among students and contribute to school spirit in a healthy way. As the discussion ended, Don admitted he had not considered these possibilities, nor had he realized he was dictating his values. He concluded that he might not have written the editorial had he considered all these aspects, but he remained adamant in his belief that the barbaric tradition was not worth the loss of class time and that more positive 'traditions' for creating unity might be designed. His peers once again supported him, this time nodding their heads in silent agreement.

The benefits of seminar discussions were frequently cited by students in their written evaluations. One student commented on the importance of discussion and "heated" debates because these types of conversations made students think, clarify and defend their own positions as well as listen to other's opinions. This belief was echoed by the majority of students, who felt they had learned how to see, analyze, and present all aspects of an issue through participation in seminar discussions. They noted an increase in their ability to think critically, to clarify personal values, to understand and try to predict the effects of their actions, and to remain open to new ideas.

> I learned that there are at least two sides to every issue and I need to find where I stand. At this point my views are very flexible and changing as new situations and information are added to my realm of knowledge. For example in studying the grading system my basic hypothesis was proved, disproved, then proved again. I changed my thoughts several times as my perspective changed.

Students also realized that "teachers have many decisions to make that are not easy and clearcut." They expressed a need to know more about their students in order to become more empathetic and effective:

> I did my term paper on the effects of poverty on education. The knowledge I gained helped me to look at students in a different light. . . I can now understand some of the forces that help determine their attitudes. In a broader sense, the knowledge I have gained this semester has encouraged me to look at all sides of an issue before making a decision. Also, I have learned to respect differing opinions.

Although the majority of students were challenged and inspired by seminar discussions (some even asked for more), not all students were comfortable with these conversations. Some were unable or unwilling to reflect on situations; they expressed discomfort with ambiguity and lack of resolution. One student begged, "Give us answers! I want something to hold on to!!!" One implored, "Understand that I need absoluteness and concreteness." Another suggested that professors provide more "connective tissue" and resolutions during seminars.

In general, students appreciated their professors' styles of teaching, which they viewed as challenging and thought-provoking. One student remained intimidated by professors' styles of questioning throughout the program, even when she decided the professor was not being aggressive (this particular student was also intimidated by her peers). Several students commented positively on the professors' presentations of actual teaching dilemmas they had faced. However, some students were upset when professors admitted feeling uncertain about the decisions they had

made to solve these dilemmas or if they had changed their minds after the decisions were made.

In their evaluations of students and seminars, professors viewed the interactions somewhat differently than did the students. Professors commented that they had expected more active student participation both in the development of the teaching/learning process and in the format of the seminar. These professors, accustomed to teaching seminars at the graduate level, were surprised that these undergraduate students seemed to want more structure than they provided. One professor who frequently teaches undergraduate courses described the situation from the students' point of view, "They have not been challenged to explain and justify their opinions nor to be comfortable with disagreement" in their educational experiences. Because their previous experiences conditioned students to expect structure and authority, they responded in the "patterned educational styles" they had learned. Those students who felt comfortable with the seminar format tended to dominate discussions and to set the tone of the class, which was viewed as detrimental by professors. All seminar professors, however, believed open dialogue was encouraged and students had the ability and the opportunity to communicate their ideas.

As students reflected on their seminar experiences while writing their Learning-to-Teach Autobiographies, they considered the many changes brought about by seminar professors and their peers. All eight program graduates had learned to apply the theories and research presented and discussed in seminar to the practice of teaching. These learnings reflected both the

experiential base and the knowledge level of individual students. For instance, three students commented that they had entered the first seminar believing teachers taught content, not students; they all graduated "knowing" teachers taught "the students' whole selves,'" a point emphasized by all professors. Many examples of important knowledge gained in seminars were mentioned by students. For instance, a valuable seminar experience for one student was learning how to lead a discussion, a process she believed was very difficult to learn because of the necessary "wait time" and higher-level questioning techniques involved. Each student gained valuable knowledge, but this knowledge was not the same for all. For example. another student stated that the Inquiry into Learning seminar enabled her to become more observant of students and more aware of her own eclectic beliefs about learning processes, which prepared her to use different techniques based on her students' styles of learning. These students examined their own teaching styles, as well. Several decided to "model" certain aspects of their professors' styles because they were effective and "fit" their own personalities and beliefs. "Fit" was important; seminar interactions taught students to decide for themselves what approaches to use and what styles to adopt. Finally, all students reported that they had learned more about themselves in relation to others. They graduated from the program believing that "teaching is a part of one's life rather than a job."

VII. DISCUSSION

Results from the documentation effort indicate that the Alternative Teacher Education Program was successfully planned and implemented and that the level of satisfaction among participants was high. We cannot say with certainty, however, what factors most strongly contributed to the success of this endeavor, nor can we make the claim that bright students approach learning to teach in a qualitatively different manner than do other students. We believe that the likelihood of project success was enhanced by the intentional and concerted effort put forth by all involved. The experiment worked, in effect, because we all wanted it to work.

With regard to collaboration we have learned that strong collaboration requires a sustained time commitment. Individuals must take active roles in planning, monitoring, modifying and evaluating. The collaborative unit included members from a variety of educational settings to insure that all viewpoints were represented. In part, members remained interested in the project because of this diversity. It appears that one of the most important factors in developing an effective collaborative process is involvement of the "right" people and expression of appreciation for their input and knowledge. Members felt they were valued both personally and professionally. Different types of meetings were held to sustain interest and increase effectiveness and productivity.

With regard to students' perceptions of learning to teach, the themes which emerged from students' analyses and autobiographical writings indicate areas of common growth. Though

these themes are not unique to the teacher education literature, some are worthy of further study and elaboration. It is important to acknowledge the interplay of the personal and professional dimensions of learning to teach. It is likewise important to recognize the strong influence of excellent professors and excellent classroom teachers, neither to the exclusion of the other. Growth as a teacher also is indicated through the increase in complexity with which students view teaching tasks. Results from the MER indicated development of cognitive complexity as well.

Results from program documentation efforts indicate that change in teacher education program components was necessary to sustain the interest of bright students in the preparation process. From the application process to the Action Research Project student felt challenged. "Fixing" one program element (e.g., developing mentor teachers) would not have allowed for significant program improvement. All aspects of the program had to be examined and altered for the project to have the kind of impact we desired. The foundation for program improvement, not only for bright students, but for all student has been thoughtfully constructed. It has not happened without considerable effort on the part of all participants.

There are several areas of concern which still must be addressed. The involvement of faculty advisors in ways which encourage creative program planning has been difficult. The effort needed for this aspect of the program illustrates how much faculty members have become conditioned to mandates and state standards for

is the way we've always done it" attitudes were challenged. It has been difficult to change faculty attitudes. Discrepancies between students' and professors' perceptions of seminars emerged from analysis. These discrepancies could be resolved if professors encouraged the participation of all students and clarified their expectations for student performance. In turn, students must be willing to enter into the active teaching/learning process of seminars and accept that there are no easy answers to teaching dilemmas. These areas of concern must be communicated to professors and students so they may take positive steps to improve seminar interactions. Another area for continued focus are relationships with school districts. Who "controls" entry to classrooms and access to teachers who are eager to develop their mentoring abilities is an issue which needs continuous care. A "labor intensive" project like ATEP also needs clear, consistent and continuous communication to occur among all stakeholders. When communication links break down, problems occur.

We remain convinced that ATEP is worthwhile and look forward to continuing our study.

VIII. IMPLICATIONS FOR IMPROVING TEACHER EDUCATION

The Alternative Teacher Education Program designed for academically talented students is an approach to the improvement of teacher preparation not only for bright students but for all students desiring to become teachers. The following implications were derived from the study of this program and suggest some direction for the reform of teacher education locally and nationally.

1. Use a broad-based collaborative council in the design, implementation and monitoring of teacher education.

The project's planning council with cross university representation as well as cross school district representation allowed for exchange and debate of fundamental principles in teacher education. Each of the constituents were helpful providing dramatically different views about teacher preparation from the selection of potential teacher candidates to advise on bridge-building with local school districts. The integrated planning process allowed for ownership of the project among all groups to emerge. Such ownership has built credibility for this project which has assured its institutionalization.

2. Provide a multi-faceted assessment process as part of admission to teacher education programs.

The assessment process which specified multiple criteria and a team approach to selective admission allowed both prospective students and faculty "judges" the opportunity to scrutinize the abilities and characteristics of prospective teacher candidates. Potential problems were identified early. Ownership was evident for students who were admitted. Faculty began to know the students early and thus were able to make program decisions based upon evidence provided through the admissions process.

3. Develop a program with clearly articulated conceptual focus.

When "inquiry" became the guiding focus for program development faculty made content and instructional process decisions to support the conceptual focus of the program. Students became aware of a variety of inquiry orientations and were able to structure their learning outcomes accordingly. thus assessment of program goals was more clear than a traditional "shot gun" approach to teacher preparation.

4. Continuously monitor student progress.

When data are collected about students from admission and at the conclusion of each phase of the program it is much easier to identify students' growth and development in the teaching process. Students, although academically successful, may not be successful in the classroom. Continuous monitoring has enabled us to identify students with social, emotional and interpersonal problems and to advise them accordingly.

5. Recognize students' strengths and abilities in curricular program planning.

Just as we have studied and supported the recognition of differentiated learning experiences for children and youth especially with regard to language development and the learning of mathematics, so, through ATEP, we have acknowledged individual differences in learning to teach. Some students are ready for different kinds of learning at different times. Some students bring to the teacher education process rich life histories which

influence the rate at which they learn to teach. Through a individualized approach to learning to teach these distinctions can be acknowledged and extended allowing for more effective and efficient preparation to occur.

6. Recognize teacher expertise in the teacher education process.

Classroom teachers have much to offer prospective teacher candidates. Their context rich "wisdom of practice" and their experience working with other teacher candidates enabled us to identify a cadre of potential mentors who were eager for the challenge of having a bright teacher candidate in their classrooms for an extended (2 year) experience. These teachers did not need to be "trained". They only needed support as they developed the role and responsibilities associated with it. Acknowledging their professional worth through the partnership with ATEP was a strength.

7. Build parity and ownership with school district personnel.

The identification, recruitment and selection of teachers to work as partners in teacher education cannot be done using a traditional chain of command through administrative offices with administrative criteria. Prospective teachers and practicing teachers must have the opportunity to interact directly for "goodness of fit" to be enhanced. This cannot occur unless school district personnel and university personnel development mutually conceive parity and ownership for the teacher development process.

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8. Develop a vehicle for program documentation and self study for data-based data rich program decision making.

Throughout this program development effort data have been gathered to document all aspects of the program from multiple perspectives. Through continuous data collection and analysis we were able to make program modifications on an ongoing bases. The data summaries also provided evidence of progress and program impact of the Planning Council and to College and University Policy makers. Such evidence will also be useful when the program is institutionalized and presented for scrutiny by program approval and accreditation agencies.

9. Develop cohort groups of students for teacher education programs.

The cohort group proved to be a vehicle which enabled ongoing communication and support for the teacher education candidates. Over the two year period of this study students were able to really get to know one another. Their positions related to teaching, learning and schooling were able to be articulated and challenged for and by one another.

10. Provide opportunities for colleagueship among teachers, students, and university faculty members.

Each semester opportunities for students, mentor teachers and university faculty members were provided to enable dialogue about the project to occur. A notable impact was felt by university faculty members who were encouraged to share with one another

courses content, instructional processes and insights about the students. They were helpful to one another as they each prepared their course. Springing from this dialogue is a cross program research team that is working together to design a study of program options available in our College. Such exchanges build program support and power.

Although the Alternative Teacher Education Program developed for creating cohort groups of bright students for teacher education seems to have been very effective, several conflicting issues and questions still exist. Even though the professional preparation of bright people for teaching may be possible, will the profession itself be able to sustain their talents? Over time, will these students continue to view the activities of teaching in a challenging and complex fashion or will the routines of teaching become discouraging? Will campus colleagues continue to support our efforts, especially when the coursework and program design are put forth for consideration by curricular bodies? How will we deal with students who are admitted to the program but later are judged ineffective in the classroom? How tolerant might others be of the intellectual and social demands put forth by bright students?

The implications of our work in this arena suggest that it is indeed possible to use what is known about teacher education to improve the likelihood of attracting bright students into an experimental program of teacher preparation and keeping them challenged. To make this happen, one needs a broad, supportive, representative (and politically astute) base of colleagues who have a commitment to the improvement of an educational experience for

bright students. Also needed is time for discussion and deliberation. In the midst of a College of 2,000 undergraduate students are now 42 students who know they are "known", who feel comfortable with faculty members, who feel free to ask for rules to be bent, who challenge the "system" in a variety of ways, and who hope to improve public education through their knowledge, their own intellectual curiosity, and their ability to reflect upon the complexity of teaching. In time, we hope to learn more about these students as they become teachers. For now, we are pleased to have been successful in attracting them into teacher preparation.

To summarize, the Alternative Teacher Education program which was developed as a results of the challenge to "experiment" and "task risks" in order to improve teacher preparation has been successful. We have taken risks and have learned that the risks were worth taking. The program will be fully institutionalized. We believe that what we have done and what we have learned from doing this may have meaning for others interested in the improvement of teacher education for all future teachers.

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